

SECTION 08700
HARDWARE AND SPECIALTIES

A. GENERAL

RELATED WORK SPECIFIED ELSEWHERE

Blocking for Door Stops and Other Hardware at Stud Walls Section 06100

Metal Doors and Frames Section 08100

GENERAL REQUIREMENTS

Supply all items of finish hardware and related services necessary for the proper functioning of all doors, and for such other requirements as are designated under this Section.

QUALITY ASSURANCE

The firm supplying hardware for this project shall employ a member of the American Society of Architectural Hardware Consultants, or a person of equivalent capability, he shall be available during construction for consultation and technical assistance.

The hardware supplier shall coordinate all hardware items to be installed in or on metal doors and frames with the supplier of those items to assure proper fit, reinforcing and operation.

SUBMITTALS

Submit Hardware Schedule in accordance with Section 1B, Shop Drawings/Submittals. The Hardware Schedule shall list the type, manufacturer's name and number, finish and location. All abbreviations and symbols used on the Schedule shall be explained. No hardware shall be ordered, or delivered to the job, until approval of the schedule has been received from the Government Construction Representative. Approval of the schedule does not relieve the hardware supplier of fulfilling all terms of the Specifications.

Supply three (3) copies of installation instructions, maintenance instructions for each operating item, maintenance instructions for finishes, and parts manuals for all locksets, closers, exit devices and other operating devices to the Contractor for inclusion in the overall project Maintenance Manual.

Supply three (3) complete sets of all installation and adjustment tools for transmittal to the Government Construction Representative for each different style, type and series of lockset, latch, lock, exit device, closer or other adjustable hardware item provided and installed at this project.

Verify keyway requirements and establish core mark, control, grand master, master, submaster divisions and individual passage keying requirements with the Government Construction Representative. Verification shall include keying for miscellaneous locks on other items listed at the beginning of this Section. Submit separate detailed schedule indicating clearly how the final instructions to the Government Construction Representative on keying of locks have been fulfilled.

SUBMITTAL SEQUENCE

Submit schedule at earliest possible date particularly where acceptance of hardware schedule must precede fabrication of other work (e.g., metal doors and frames), which are critical in the project construction schedule. Include with schedule the product data, samples, shop drawings of other work affected by builders of hardware, and other information essential to the coordinated review of hardware schedule.

Hardware for installation on metal doors and frames shall be made to standard templates, and such templates, schedules and other pertinent information shall be delivered to the individual door and frame fabricators within ten days after receipt of the approved Finish Hardware Schedule. All metal doors and frames shall be reinforced, drilled, and tapped by the fabricator for mortised hardware. Reinforcement for surface-applied hardware shall be by the fabricators. Drilling and tapping shall be done in the field by the hardware installer for surface-applied hardware items.

PRODUCT HANDLING

Package hardware in individual containers on a set-by-set basis with set numbers that correspond to the approved hardware schedule. Each set shall contain each item of hardware required for that set including necessary screws, keys and installation instructions, and installation templates for spotting mortising tools. Two or more identical sets may be packaged in the same container. Mark each container clearly with hardware set numbers. All keys shall be tagged according to their corresponding locks and delivered to the Government Construction Representative as described hereinafter. All construction keys shall be delivered to the Contractor.

B. PRODUCTS

HARDWARE

Finish hardware shall be as hereinafter specified and scheduled. Provide additional items of hardware, which are necessary to make a complete workmanlike installation even though such items are not specified. Such miscellaneous items shall be equal in quality to items which are specified.

Brands and models designated in this Section are intended to define the exact standards of quality, function and design required. Substitution will not be permitted unless given written approval by the Government Construction Representative.

<u>ITEM</u>	<u>SPECIFIED</u>	<u>ACCEPTABLE</u>
Hinges	Stanley	Hager, McKinney
Locks	Corbin-Russwin	No Substitutions
Closers	Norton	LCN 4040 EDA, Stanley D-4550EDA
Overhead Stops	Rixson	ABH
Flat Goods & Stops	Rockwood	Trimco
	Armor Plates 30" x 2" L.D.W. x .050	US32D
	Door Bolts	Rockwood
		Ives
Weatherproofing*	Pemko	Reese

*Provide S88D perimeter gasket at fire-rated doors. Provide appropriate meeting stile strips at pairs.

KEYING

All locks shall be keyed in the factory registered system previously established for this building; supply 4 keys for each master and sub-master division, and 2 passage keys per lock.

Cores and keys for all locks shall be furnished and installed under this Combined Contract.

Keying arrangements and requirements for all new locks shall be coordinated directly between the hardware supplier and the Government Construction Representative.

Hardware shall have the following U.S. Standard finishes:

1. US26D or US32D for all items unless otherwise specified.
2. AL finish for exposed surfaces of door closers unless otherwise noted.
3. Similar finishes for all other items unless otherwise noted.

All doors over 36-inches wide will require 5-inch high butts.

Closers on all doors shall be mounted with sex bolts and finishing washers. Grommet nuts will not be acceptable. Provide mounting plates where required. Closers shall be of the parallel arm configuration where possible. Closer arms shall be heavy-duty type for all closers.

Fabricate door plates from 0.50-inch thick metal, drilled and countersunk for field mounting, furnished with matching finish oval head screws suitable for door material construction.

All metal frames shall receive Glynn Johnson GJ64 silencers as required. Provide three silencers on strike jambs of frames of single swing doors and two silencers on heads of frames of double-swing doors.

Dead stop angles for closers and overhead stops shall be accurately determined to prevent doors from contacting adjoining walls or other doors while still effecting the hold-open point at the greatest possible angle.

Supply correct wall stop anchors to coordinate with the wall construction. Wall stops installed on stud walls must be screwed into wood blocking installed within the wall under Section 06100.

C. EXECUTION

HARDWARE LOCATIONS

Hardware locations (height above finish floor) shall be as follows:

Exit Devices	40" to centerline of bar
Interior & Exterior Levers & Pulls	40" to centerline
Push/Pull Plates	32" to bottom of plates
Flush Cup Pulls	36" to centerline

INSTALLATION OF HARDWARE

GENERAL

Install each hardware item in compliance with the manufacturer's written instructions. Wherever cutting and fitting is required to install hardware onto or into surfaces, which are later to be painted or finished in another way, coordinate removal, storage and reinstallation or application of surface protections with finishing work specified in the Division 9 sections. Do not install surface-mounted items until finishes have been completed on the substrate.

Set units level, plumb and true to line and location. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.

Drill, tap and countersink units for surface-applied hardware and other items which are not factory-prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards and manufacturer's recommendations.

INSTALLATION OF SEALS

Provide metal fasteners of type which will not work loose as a result of normal door use, and which are compatible with metal of the stripping, the frame or the door. Provide only smooth exposed fastener heads, which do not constitute a snagging hazard to clothing of building occupants.

Set units plumb and level, accurately centered at optimum location for maintaining a permanent seal.

Adjust doors, frames and hardware, as necessary, to achieve proper operation of seals.

ADJUST AND CLEAN

Adjust and check each operating item of hardware and each door, to ensure proper operation or function of every unit. Replace any unit which cannot be adjusted to operate freely and smoothly as intended for the application made.

HARDWARE SCHEDULE

HARDWARE SET NO. 1

3	Pairs	Hinges	FBF179 4 1/2" x 4 1/2"	US26D
1	Each	Storeroom Lockset	CL 3357 NZD	626
1	Each	Overhead Stop	#10	US32D
1	Each	Closer	PR 7500	AL
2	Each	Flush Bolts	#555	US26D
2	Each	Armor Plates (on pull side)		
1	Set	Gasketing		